

Congenital Malformation in The Embryonic Stage in Sheep and Surgical Removal of The Extra Mouth in The Lamb: A Case Report

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Abstract

Congenital malformations are structural and functional abnormalities that appear at birth. Abnormal development may be due to poor gene control, genetic manipulation and consumption of toxic plants during pregnancy leads to fetal abnormalities. Genetic manipulation can cause morphological and histological changes that cause malformation. Sometimes a deformed fetus needs a cesarean section or miscarriages, these viruses are able to penetrate the placenta and the blood-brain barrier of the fetus. The report of this case indicates a case of a congenital defect in the formation of an extra mouth in the vicinity of the ear in pregnancy at the age of 3 months. Through clinical observation, the health condition was good in terms of pulse and temperature and eating well, but it was found that there is an extra mouth that consists of the lower jaw and tongue, and it was noted that the additional oral cavity comes into contact with the esophagus through the passage of food residues through it. This condition is considered a birth defect caused by birth defects during fetal development and can affect part of the body. This growth defect was surgically removed and treated postoperatively with antibiotics.

Keywords: congenital defect; additional mouth; lower jaw; tongues; surgically

Introduction

Congenital malformations are observed at birth and can affect the functional work of some organs [1]. Congenital malformations are rarely seen in horses, and occasionally in cats and dogs [2], human [4] and in ruminants, pigs [5], goats [6], sheep [3;7;8;22], cows [9] and buffaloes [10]. The rate of malformations in lambs was 0.5-2% [11] and in calves 0.2-5% [12]. Abnormalities of different parts are noted: the skeletal, muscular, respiratory, nervous, reproductive, skin, and other systems [13-15]. Congenital anomalies may be caused by genetic diseases [16;18] Abnormal developments may be due to poor gene control [4], disruption of cellular and tissue interactions [19], or local environmental influences on gene expression [20]. Genetic manipulation can lead to morphological and histological changes that leads to malformation and consumption of toxic plants during pregnancy leads to fetal abnormalities [21]. The malformations decreases with the age of the fetus, as the fertilized egg is susceptible to embryonic mutations (14 - 42 days), which leads to fetal malformation [1]. Anomalies can occur in the fetus at the age of 4-8 weeks due to an infection with some viral diseases, these viruses are able to penetrate the placenta and the blood-brain barrier of the fetus [2]. partial in the structure of the body [21]. Sometimes a deformed fetus needs a

cesarean section because of the difficulty of removing it by natural delivery [16], miscarriages may occur in mothers due to malformations [11].

Case Report:

An owner of 3-month old lamb weighing 10 kg brought him to the veterinary clinic. it was born with an additional mouth .The additional mouth was in incomplete form, near the area of the ear. This extra mouth had lower jaw and tongue was in contact with the oesophagus. The owner confirmed that the lamb was in a normal behavioural state but noted that the parts of the food came out of the extra oral cavity.

Clinical examination:

The clinical examination of the lamb where the body vital indicators (rectal temperature, heart rate, respiratory rate) were found at normal limits. When examining the area near the ear, an oral cavity attached to the oesophagus and mouth consisted of a lower jaw was observed. The presence of a small tongue is shown in the picture (1). This condition is a congenital malformation resulting in the embryonic stage. However, it was decided to do excision surgically, and the extra mouth eradicated.



picture (1): illustrate the location of anatomical extra-mouth

Surgical intervention:

The site of the operation was prepared as usual. The wool was removed, shaved, and disinfected with Povidone Iodine solution. Local- rounded anaesthesia was performed around the extra mouth using lidocaine chloride. The lamb was placed on the table in the lateral position where the jaw was removed firstly as shown in the picture. After that, the tooth was

connected from the contact point, and then removed by the scalpel including tongue and the lower jaw of extra-mouth shown in the picture (2,3). In this case, the jaw was disengaged and the oesophagus was stitched using a thread (PGA number 0.2). in the shape of a chamida and then Lambert, and then the muscle layer is sutured by a simple continuous stitch using a chromic thread number 1. The skin is stitched using a surgical silk number 1 picture (4).



picture (2): surgical excision of extra mouth and lower jaw



picture (3): complete eradication of all constituents of extra mouth including the tongue



picture (4): surgical stitch of skin to close opening as the final step of operation

After the surgery, an antibiotic was administered benzyl penicillin, procaine, 200,000 IU and dihydrostreptomycin sulfate 250 mg once daily for 5 days.

Discussion:

This condition is rare for the removal of an extra mouth near the area of a lamb at the age of 3 months so you have to talk about and how to surgically remove. Skeletal defects are common, and the skeletal system may be affected in its entirety or with single, isolated defects [15]. Some researchers have found congenital malformations in the mouth itself [21] or Congenital anomalies with accessory limbs and digits occur very rarely in cattle and there are few, if any, reports on such incidences. The animals with supernumerary ectopic limbs and supernumerary digits can survive successfully with normal locomotion and better aesthesis if the surgical excision is performed under proper aseptic conditions and appropriate postoperative care is taken [8]. but in this case marked by the presence of congenital deformity of the formation of an addition mouth composed of the lower jaw and tongue and the result of the connection of the oral cavity additional pharynx, resulting in the exit of feed intake through extra mouth we found it better to remove it surgically because of the consumption of lamb feed too much because part of the extra mouth and also affects the growth of the lamb.

Conclusions:

The surgical eradication of extra mouth can be easily done although many tissues like salivary glands, lymph nodes and carotid artery surround the location.

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Conflicts of interests: The author declares that there are no conflicts of interests.

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Ethical approval: Ethical guidelines were followed in this work.

Data and materials availability: All data associated with this study are present in the paper.

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